

## New Species of *Skrjabinoclava* (Nematoda: Acuarioidea) from the Semipalmated Sandpiper (*Calidris pusilla*) (Aves: Scolopacidae)

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**ABSTRACT:** *Skrjabinoclava deltensis* from the proventriculus of a semipalmated sandpiper (*Calidris pusilla* (L.)) collected at the Delta Marsh in Manitoba, Canada, is distinguished from all other members of the genus by its long, slender right spicule divided into a shaft and a blade.

**KEY WORDS:** Nematoda, Acuarioidea, Charadriiformes, *Skrjabinoclava deltensis* sp. n.

Three species of *Skrjabinoclava* have been reported in semipalmated sandpipers (*Calidris pusilla* (L.)) in North America. *Skrjabinoclava morrisoni* Wong and Anderson, 1987, and *S. pusillae* Wong and Anderson, 1987, were found in 46–47% of semipalmated sandpipers collected in New Brunswick, Canada, and they are basically parasites of this shorebird (Wong and Anderson, 1987). *Skrjabinoclava bakeri* Wong and Anderson, 1987, has been found rarely (3%) in *C. pusilla*, but it is essentially a parasite of western sandpipers (*Calidris mauri*). Similarly, *S. tupacincal* Freitas and Ibanez, 1970, has been found in *C. pusilla* (7%), but it is mainly a parasite of sanderlings (*Calidris alba*). In the present article, a new species of *Skrjabinoclava* is described from *C. pusilla*. It is apparently an uncommon species in this host because it was recovered from only 1 of 26 birds examined.

### Materials and Methods

Semipalmated sandpipers (26) were collected by netting and were examined for acuarioid nematodes. After removal from the proventriculus, the specimens were washed in saline and fixed in hot glycerine alcohol. They were cleared and studied in glycerin. Measurements are given in micrometers, unless indicated otherwise.

### *Skrjabinoclava deltensis* sp. n. (Figs. 1–5)

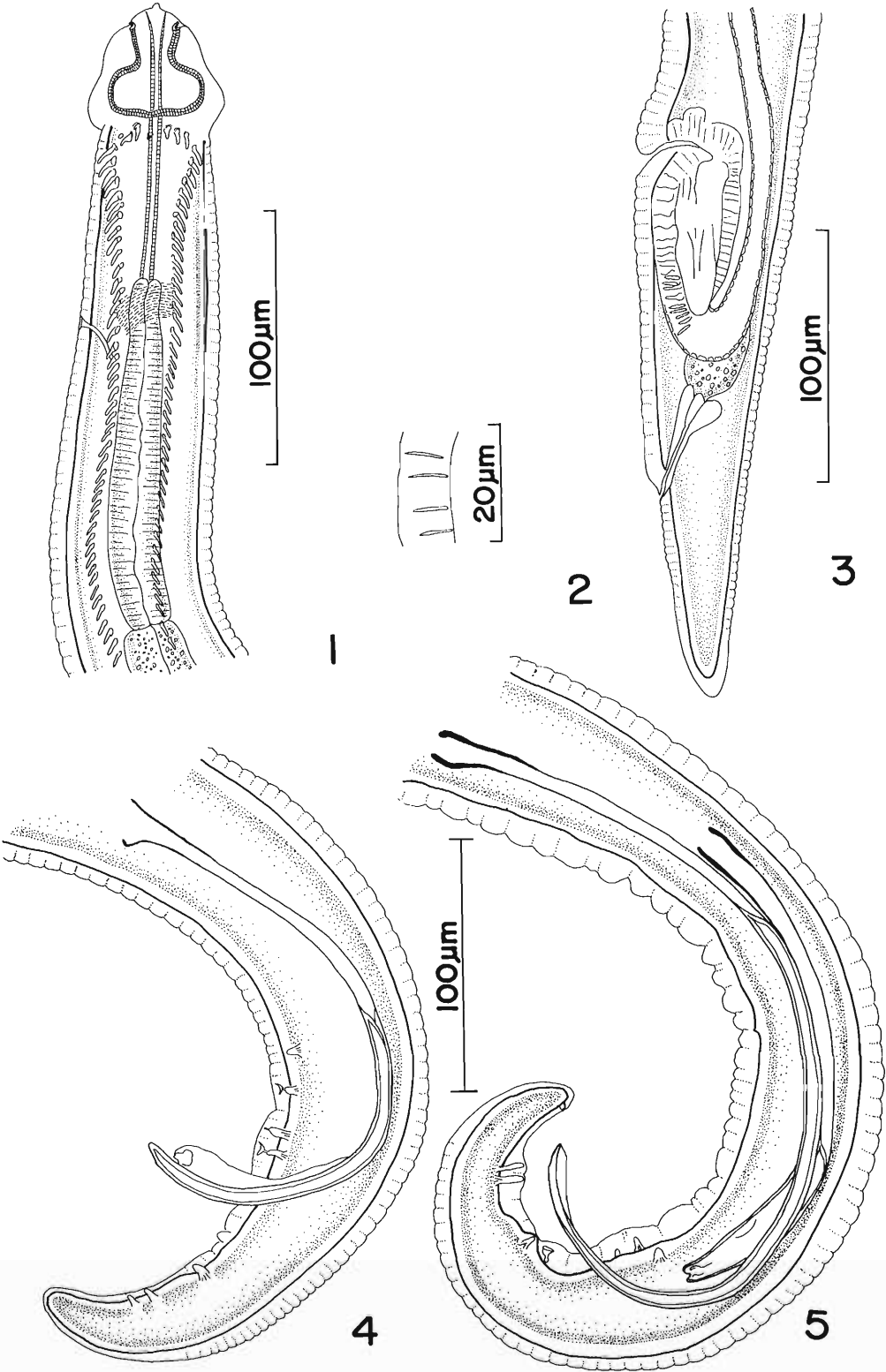
**GENERAL:** Small worms with cordons as broad as long, constricted laterally. Body spines forming broad arch behind cordons and decreasing in size posteriorly (Fig. 1). Cuticle thick with regular transverse striations.

**MALE HOLOTYPE:** Length 1.8 mm. Maximum width, near middle of body, 78. Cordons 33 long by 35 wide. Buccal cavity 96 in length. Deirids 43, nerve ring 101, and excretory pore 130 from anterior extremity. Muscular esophagus 106, club-shaped, and glandular esophagus 550 in length. Total esophagus 656 in length. Left spicule 410 in length, narrow, ending in tapered point with ventral membranous wing (Fig. 5). Right spicule 210 in length (51% of the length of left spicule) with distal third expanded and distal end with cleft, divided into calamus and lamina. Caudal papillae consisting of 3 pairs preanal and 5 pairs postanal. Area rugosa (Fig. 2) consisting of 4 parallel rows of cuticular ridges. Tail 96 in length, slightly tapered.

**MALE PARATYPE:** Length 2.3 mm. Maximum width 72. Cordons 30 long by 33 wide. Buccal cavity 95 in length. Deirids 49, nerve ring 114, and excretory pore 139 from anterior extremity. Muscular esophagus 132 and glandular esophagus 660 in length. Total esophagus 792 in length. Left spicule 257 in length. Right spicule abnormal (Fig. 4). Caudal papillae consisting of 3 pairs preanal and 5 pairs postanal.

**FEMALE ALLOTYPE:** Length 2.3 mm. Maximum width 77. Cordons 36 long by 40 wide. Buccal cavity 106 in length. Deirids 102, nerve ring 116, and excretory pore 128 from anterior extremity. Muscular esophagus 135 and glandular esophagus 786 in length. Total esophagus 921 in length. Vulva 221 from caudal extremity. Vagina directed posteriorly, leading to single anteriorly directed uterus. Eggs in uterus few and undeveloped into larvae. Tail 82 in length, tapered with rounded tip (Fig. 3).

Figures 1–5. *Skrjabinoclava deltensis* sp. n. 1. Anterior end female, lateral view (allotype). 2. Area rugosa. 3. Posterior end female, lateral view. 4. Posterior end male, lateral view (paratype with deformed right spicule). 5. Posterior end male, lateral view (holotype with normal spicules).



**HOST:** Adult female *Calidris pusilla* (L.) semipalmated sandpiper (Scolopacidae).

**LOCATION IN HOST:** Attached close together to the mucosa of the proventriculus.

**LOCALITY AND DATE OF COLLECTION:** Delta Marsh, Manitoba, Canada; June 1986.

**PREVALENCE:** The specimens were found in 1 of 26 birds examined.

**SPECIMENS:** United States National Museum, Helminthological Collection (Holotype ♂, paratype ♂, allotype ♀) No. 82910.

**ETYMOLOGY:** After the type locality.

**COMMENTS:** *Skrjabinoclava deltensis* is readily distinguished by its long, slender right spicule divided obviously into a calamus (shaft) and lamina (blade) and about 51% of the length of the longer left spicule. In other members of the genus, the right spicule varies in shape depending on the species (see Wong and Anderson, 1987), but it is never as long as 50% of the left spicule and never divided into a shaft and blade as in *S. deltensis*.

We include in the description the paratype male with what is obviously an abnormally developed right spicule. In all other respects, this specimen agrees with the holotype, and we believe that it belongs to the same species.

A single male and a single female of *S. pusillae* Wong and Anderson, 1987, were also found in the sandpiper containing the new species. Females of species of the genus *Skrjabinoclava* are difficult to distinguish; however, the female herein assigned to *S. deltensis* is much smaller than the female of *S. pusillae*, and there is no overlap in the various measurements of the 2 species (see Wong and Anderson, 1987).

#### Literature Cited

- Wong, P. L., and R. C. Anderson. 1987. New and described species of *Skrjabinoclava* (Nematoda: Acuarioidea) of the proventriculus of nearctic waders (Aves: Charadriiformes) with a review of the genus and a key to species. Canadian Journal of Zoology 65:2760-2779.

### New Editor

I am honored to be appointed as the new editor of the *Journal*. I would like to publicly thank the previous editor, Ralph Eckerlin, who has completed his 5-year term and who has worked very hard in maintaining the high quality of this publication and for making the editorial transition as smooth as possible. I am looking forward to working with the Editorial Board, Allen Press, and the authors during my term of office. Moreover, I would like to invite parasitologists working in all aspects of the discipline to consider submitting manuscripts to the *Journal*.

Sherman S. Hendrix